PATENT
LOREAL 3.0-015

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of   :
Desenne et al.   :
  :   Group Art Unit: 1751
Application No. 10/808,676   :
  :   Examiner: E.B. Elhilo
Filed: March 25, 2004   :
  :   Date: February 28, 2007
For: COMPOSITION FOR DYEING   :
KERATIN FIBRES, COMPRISING   :
AT LEAST ONE POLYCARBOXYLIC   :
ACID, OR A SALT, READY-TO-USE   :
COMPOSITION COMPRISING IT,   :
IMPLEMENTATION PROCESS AND   :
DEVICE   :
  :
_____X

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

DECLARATION OF Jean-Marie MILLEQUANT UNDER 37 C.F.R. §1.132

Sir:

I, Jean-Marie MILLEQUANT, hereby declare as follows:

1. I am a co-inventor of the captioned patent application.

2. I have reviewed the Office Action dated August 31, 2006.

3. I understand the position taken by the Examiner with respect to patentability of my claimed invention, particularly his view that claims 1 - 46 would have been obvious in view of United States Patent Application No. 2001/0023515 ("Cottard") and WO 00/25730 ("Huglin").

4. The purpose of this Declaration is to present additional work that was conducted under my general supervision.

5. Experiments were carried out as follows: First, two dyeing compositions were prepared as shown in Exhibit A. Dyeing Composition 1 is an inventive composition that contains methylglycinediacetic acid (MGDA). Dyeing Composition 2 is a comparative dyeing composition in that it is an identical composition except that it contains ethylenediamine tetracetic acid (EDTA) in lieu of MGDA.

6. An Oxidizing Composition was then prepared as shown in Exhibit B. Each of the dyeing compositions was separately mixed with the oxidizing composition (1.5 equivalents of oxidizing composition for each equivalent of dyeing composition). The resulting mixtures were applied onto locks of hair (natural white hair and permed white hair), with 1 gram of hair for 10 grams of composition. Each of the

compositions was allowed to work on the hair for 30 minutes at a temperature of 27°C. After 30 minutes, the locks were rinsed and washed with a shampoo, followed by further rinsing and drying. The resulting color of the locks was measured with a spectrocolorimeter (Datacolor Spectraflash SF600X).

7. The value of selectivity of the inventive composition containing MGDA was calculated between natural hair and permed hair and compared to the selectivity obtained with the dyeing composition containing EDTA. Selectivity = $[(L*0-L*1)^2 + (a*0-a*1)^2 + (b*0-b*1)^2]$, in which the coordinates $L*0$, $a*0$, and $b*0$ corresponded to natural hair, while the coordinates $L*1$, $a*1$, and $b*1$ corresponded to permed hair.

8. The value of selectivity is an industry recognized measurement of the homogeneity of the color along the fibers from the roots to the end of the hair, the natural hair being representative of the roots of customer hair and the permed hair being representative of the ends of customer hair. A lower selectivity value corresponds to a higher uniformity of color along the hair.

9. The results were as follows:

Composition	Selectivity	Variation of selectivity
EDTA comparative composition	3.25	

MGDA inventive composition	1.18	2.07

10. The results indicate that the value of selectivity of the MGDA inventive composition was considerably lower than the EDTA comparative composition.

11. In my opinion, the claimed invention achieved superior results that would not have been expected by a person skilled in the art. Notwithstanding its known property as a complexing agent, it was not expected that MGDA would have an effect on dyeing efficiency.

I declare under penalty of perjury under the laws of the United States of America that the foregoing is true and correct.

Dated: February 23

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Jean-Marie MILLEQUANT

EXHIBIT A

Composition	Dyeing Composition 1 — Composition of the invention with mucic acid	Dyeing Composition 2 — Comparative composition with EDTA
Cetylstearylic alcohol	13%	13%
Oxyethylenated lauric alcohol (12 EO)	8%	8%
Oxyethylenated decylic acid (3 EO) at a concentration of 90% in water [Empilan KA 2.5/90FL-Huntsman]	6%	6%
Oxyethylenated oleocetylic alcohol (30 EO)	4%	4%
Lauric acid	5%	5%
Monoethanolamine	2%	2%
Propylene glycol	8%	8%
Polycondensate of tetramethyl hexamethylene diamine/dichloro 1,3 propylene at a concentration of 60% in water [Mexomere PO-Chimex]	1%	1%
Copolymer of dimethyl diallylammonium chloride/acrylic acid (80/20) at a concentration of 40.5% in water [Merquat 280-Nalco]	2%	2%
Glycol distearate	4%	4%
Hydrophobic fumed silica	2%	2%
Crosslinked polyacrylic acid [Carbopol 980-Noveon]	0.6%	0.6%
Tri sodium salt of methyglycinediacetic acid in a 40% aqueous solution that has 40% [Trolon m commercial liquid from BASF]	**2% MA**	
EDTA		2% MA
1,3-dihydroxybenzene (resorcinol)	0.67%	0.67%
Paraphenylene diamine	0.88%	0.88%
5-(N)-(β-hydroxyethyl)amino-2-methyl-phenol	0.055%	0.055%
2-methyl-1,3-dihydroxybenzene	0.11%	0.11%
Para-aminophenol	0.27%	0.27%
4-(methylamino)phenol hemisulfate	0.26%	0.26%
1-hydroxy-3-amino benzene	0.16%	0.16%
Antioxydant	Qs	Qs
Reducing agent	Qs	Qs
Perfume	Qs	Qs
Aqueous ammonia (20% NH3)	11.1%	11.1%
Water	Qsp 100%	Qsp 100%

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EXHIBIT B

Oxidizing Composition	
Fatty alcohol	2.3
Oxyethylenated fatty alcohol	0.6
Fatty amide	0.9
Glycerine	0.5
Hydrogen peroxide	6
Perfume	qs
Demineralized water	qsp 100